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INTERNATIONAL RESPONSIBILITY OF STATES FOR THE PEACEFUL USE OF
NUCLEAR ENERGY
(The need for international legislative action)

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SUMMARY

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I) INTRODUCTION. This paper examines the most serious of the various legal problems raised by the peaceful uses of nuclear energy: the international responsibility of States for the damages that may be caused.

Generally speaking, little is known about the utilization of this new source of power and the damages it may eventually bring about. It is a common mistake to associate atomic energy with its utilization for war purposes and the damages it may cause with the terrifying effects of atomic bombs, already well-known to mankind.

But the different phases of its peaceful uses are generally unknown, as previously stated. Although its scientific and technical development is in its first stages, the advantages of its application in medical science can even now be mentioned, especially for the diagnosis and treatment of several diseases such as, glandular disorders, etc.; in agriculture for the study and better utilization of fertilizers; in veterinary, to study the use of vitamins and hormones; in industry, for the production of electric power as well as for the use of radio isotopes (tracing elements) for the control of oil pipelines, machinery and metals. The preceding list is, it should be noted, far from exhaustive since the field of nuclear energy utilization widens daily.

Unfortunately, the aforementioned benefits cannot be enjoyed without a certain amount of risk which, although limited and remote, is nevertheless there.

The damages which an uncontrolled source of nuclear radiation might cause (as in the case, for instance, of a reactor getting seriously out of order), could be classified into two groups: damage to things and damage to people. The damage caused to things, by

rendering them useless, because of the danger they might represent to human beings. As to the damage caused directly to people, it may bring on them a wide range of ailments, going from curable injuries, that leave no traces, to more serious evils such as blindness, cancer and death.

To find the means of avoiding these damages and of lessening their effects is the concern of the scientific and technical phases of nuclear energy. But it is the jurist that must undertake the task of providing the necessary legislation to cover the problems created by the ever increasing use of atomic energy and, very especially, to establish the degree of responsibility arising from the damages caused.

In this connection, a twofold presentation of the problem must be made: that of civil liability, in which the owner or operator of the machine causing the damages incurs (a situation similar to the one arising from the exploitation of dangerous industry) and that of the international liability of States for damages caused outside their jurisdiction, because of activities taking place within their territories or under their license.

In other words, the problem in question covers the damages caused: 1) in the case of facilities going out of order (which most frequently would be reactors) and producing uncontrolled ionizing radiation; 2) a similar occurrence in ships propelled by nuclear power and, 3) by the dumping of radioactive waste in the sea or rivers.

At the same time, the consequences of such eventual accidents can also be felt on another nation's territory (people or things located in that territory, either on land or in territorial waters, as in the case of fisheries), or simply on property belonging to another State, even though it may not be within its boundaries, as in the case of ships bearing the flag of another country, which may be sailing the high seas.

Steps have already been taken towards the solution of the problem of civil responsibility. Towards the end of 1958, the international Atomic Energy Agency decided to set up a Panel of "Experts in Civil

Liability and International Responsibility of States for Nuclear Risks" with the purpose of drafting an international convention thereon.

The ten members of that group were selected by the Director General of the Agency, among jurists and insurance experts from different parts of the world, the author of this paper having had the honour of being appointed expert for the Latin American area.

In spite of hard work during the course of 1959, in which a Draft Convention on Civil Liability was prepared, little or nothing was discussed in connection with the international liability of States, (even though it was one of the items in the Agenda) because of violent opposition from the USSR adviser and lack of interest from several others.

The general impression gathered from those meetings is that it will be very difficult to reach absolute agreement on this matter because of the huge interests that may be involved and the influence of political factors and also because nations are generally opposed to permitting the eventual control of their nuclear operations (even in the field of peaceful activities) which might very well be the outcome of an international agreement.

In any case, however, it is necessary to take the first steps towards finding a solution to the question of the international responsibility of States for nuclear risks. One of those steps is the setting out of the problem, which is the object of this paper.

II) THE PROBLEM, a) Characteristics of nuclear risks. A possibility which even at this early stage it seems necessary to foresee is that of nuclear accidents suffered by stationary reactors which may produce radioactive outlets; these in turn may cause a radioactive fall-out which, being borne by air currents, may produce a radioactive precipitation on the territory of a country other than the one where the event happened and in which the source of ionizing radiation originated.

The damages such a radioactive fall-out might produce can be very important and the seriousness of an international conflict brought on

by such a situation can easily be conceived. 1)

One of the main characteristics of nuclear damage is in this way clearly defined: its possible international implication.

In the second place, it is impossible to omit consideration of the fact that the industrial exploitation of nuclear energy is carried out in most countries by governmental bodies. Even when such activities are in the hands of private enterprises, they always operate under Government license and are, furthermore, under permanent Governmental control. It must be pointed out on the other hand, that what with the high cost and vast industrial scope of these installations, their dependence on fuel whose existence is also under control, and the fact that they need highly specialized personnel, it is impossible to conceive the existence of clandestine atomic plants, of such scope at least as to cause important damages.

In the third place, it must be taken into account that the importance of the damages by a major nuclear accident would, in nearly every case, be outside the compensating possibilities of private industry and of insurance companies, at least within the present organization of the latter in most countries of the world.

I shall point out, finally that apart from a supposed major catastrophe, it is possible that other situations may arise such as for instance, the prevention of an impending accident or the limitation of its consequences once produced, which may require a preventive action. If the private person who may happen to operate the facility where the accident originated does not undertake this preventive action the obligation could arise for the authorizing State to do so, not only because of the "police power" it exercises, but also because

1) I refer, primarily, to the possibility of accidents suffered by a stationary reactor because of the increasing use of such reactors for the production of electric power. Other eventual causes (such as damage originated by nuclear power propelled ships as well as by radioactive waste) must not be discarded; they must be seriously considered, especially the former, in view of the projects of USA for the building of a merchant fleet of this type.

in view of the special characteristics of such an accident, it is possible for the results of the accidents to be suffered beyond the limits of the original country, as it was explained above, thus creating obligations of an international character.

Bearing in mind the above mentioned characteristics the problem under examination is limited in this paper to two aspects: 1) the necessity of determining whether the states in which a nuclear accident originates are responsible and to what extent, for damages caused by ionizing radiation outside their territory, and 2) the adoption of the best legal means to oblige them to take measures in order to avoid damages of this nature or to prevent their propagation.

Thus presented, the case offers manifold phases. It is necessary to refer to these various aspects, since the conclusions that will be arrived at will represent an approach to a total solution of the problem. I shall therefore proceed now to the examination of these questions but should like to point out that the purpose of this study, rather than finding a solution to the problem, is to call the jurists' attention to the seriousness of these matters and to the urgent need of solving them.

b) Legal questions arising thereon. A primary examination of the problem results in five basic points which need to be analyzed in order to find solutions in accordance with the various legal structures of the different nations.

These five points are:

1st.) To decide whether the States must be considered in all cases as internationally liable for compensation of extraterritorial damages originated by nuclear activities carried out in their territories or under their license.

2nd.) To determine whether positive International Law contains provisions to solve the conflicts that may arise in this field or whether it would be necessary to lay down special rules to regulate State responsibility in this connection.

3rd.) Should the 1st. point merit an affirmative answer, to establish whether the liability of the States must be joint or subsidiary to that of the owner or operator, etc. of the nuclear facility that caused the accident.

4th) To establish whether the responsibility must cover the possibility of the accident-causing activities being carried out with no specific license or State intervention. 2)

5th.) To determine, as well, whether the theory of strict liability can be applied extensively to states as it is already done in the case of nuclear exploitations carried out by private persons. 3)

The answer to these questions must undoubtedly be found prior to a general solution of the problem.

I shall now give what I think are the right answer but shall not attempt to state in detail the reasons that prompt them as that would mean lengthening this study excessively as well as giving way to argument; and my only aim at present is merely to set out the problem.

The first answer is affirmative: States must be considered responsible (to the extent indicated in answer to point 3), for extraterritorial nuclear damages whenever the determining cause has been some nuclear activity which originated under their jurisdiction or was carried out with their license.

As to the second point, in my opinion there are no International Law provisions designed to establish the extent of State responsibility in the situations that have been discussed. It is therefore necessary to set up special provisions thereon.

With reference to the third point, my answer is that State

- 2) This case could occur in nuclear power-propelled ships registered in countries whose only participation had been that of ordinary ship registration.
- 3) In this connection, we have the drafts submitted by the International Atomic Energy Agency, the O.E.E.C., the Insurance European Committee, the UNIPED as well as the legislations of West Germany, Switzerland, the United Kingdom, etc.

liability as far as compensation of damages is concerned must be subsidiary to that of the owner, operator, etc of the nuclear facility;

In reference to point four, it can be asserted that State responsibility must be applied in all cases in which the determining cause of the accident has been originated within its territory or has been carried out with its license.

Finally, for practical reasons, it is necessary to apply the theory of responsibility without fault (or strict, causal or absolute) to the operators or owners of nuclear plants as well as to the States.

This is to my mind, the way in which this problem should be approached. But, even if acceptable answers were found to the five questions proposed, definite solutions could not be discussed until precise conclusions were arrived at in connection with another series of points which, although of a secondary character, are of major practical importance.

These latter points are:

1) Compensation of damages caused by nuclear consignments, nuclear power-propelled transportation or radioactive waste thrown into the sea.

2) Kinds of indemnity covered by State responsibility (damnum emergens, lucrum cesans, preventive measures, research costs, etc., or only some of these several aspects)

3) To determine whether liability for these damages should be limited or not.

4) To establish the terms for prescription.

5) To adopt special rules about solidarity of States for damages caused jointly or cumulatively.

This second series of questions tends to point out the practical phases of the problem but these are not the final questions that need attention.

There is an additional series of questions about international proceedings and of an economic character, which must be solved before the provisions to be adopted in reference to the above mentioned

questions can be put into effect.

They consist, among others, in 1) deciding whether it is convenient or not to establish an obligatory international jurisdiction; 2) setting up special courts to lodge disputes in this field, establishing the authority incumbent to such courts; 3) creating technico-scientific bodies in charge of determining nuclear damages, their origin and the preventive measures to be adopted in each case, etc.; making agreements in reference to the convertibility of compensation payments.

III CONCLUSIONS, ADVISABLE ACTION. Neither are the questions proposed in this paper easy to answer, nor is the solution to the problem that has been discussed simple; the framing of an international system in this connection will therefore be difficult.

There is no doubt, however, that it is necessary to seek the enforcement of a set of laws to rule international obligations in this matter.

It might be best to proceed step by step, setting up regulations for each of the phases that requires an immediate solution. It is evident that the points demanding urgent regulation, by means of international conventions, are those relating to:

1) Safety for the establishment and operation of nuclear facilities and international control of same;

2) Transportation of radioactive material and disposal of radioactive waste.

3) Emergency measures to be taken in the case of impending accidents and prevention of the resulting consequences: decontamination, evacuation, sanitary aid, financing of these measures, etc.

4) Systems of financial protection for nuclear damages.

It is necessary to determine clearly the extent of State obligations in connection with the four points stated above:

a) The carrying out of safety regulations and their control in the case of nuclear activities performed by private enterprise.

b) Their responsibility, either primary or subsidiary, for non-compliance and for damages caused outside their territory when the source of ionizing radiation is in their own territory or issues from it or when, for any reason whatsoever, they have agreed to undertake compensation.

In this matter, the interests involved as well the influence of political factors and existing uncertainty about the techniques and contingencies of nuclear energy utilization, compel Governments to adopt a position of extreme prudence. It is however necessary to find legal solutions to all the problems raised by the peaceful use of nuclear energy, not only because of the danger of conflicts among States and of the serious damages that might be caused, but also for the sake of industry which requires specific legal provisions for its development.

Buenos Aires, June 1960.